

2019 OISES Drought Proofing Report

The droughtproofing program, begun in 2004, uses naturally stored winter and spring runoff in Mud Lake, Reed Lake and a large wetland to augment summer flow in Hyacinthe Creek when required. There are two sets of 5 cm diameter lines at three sites (Mud Lake outlet, the large Walcan Road culvert at Reed Lake outlet and the wetland outlet downstream of Reed Lake). Drawdown of these sources in sequence, or together, is intended to maximize water delivery to lower reaches of Hyacinthe Creek during dry periods, and thus provide higher quality rearing habitat for coho fry.

The season began March 20th when waterlines were inspected for winter damage and the valves were shut down to avoid release of stored water. Two lines were repaired, one at Reed Lake chewed by beaver, and one at the wetland needing a new valve. Two layers of new sandbags, enclosed in tough birdseed bags, were placed at the entrance to the Reed Lake culvert, with mud packed along the front edge. Volunteers attempted to build up the old beaver dam at the east end of the wetland. All waterlines were primed and ready to use.

Waterlines were opened slightly at all three locations in early June. By the end of June there was only a minimal flow, resulting from a very dry spring. From June 28th to August 1st, much-needed rains occurred regularly, thus helping to maintain a low to moderate flow. Waterlines were left open a small amount throughout the summer, which proved adequate with the unusual amount of rain in July. Water levels were checked weekly through the summer to the first week in September. From that point on, rain was sufficient to prevent drying in the creek.

Late winter and spring precipitation was well below average in February, March, May and June. As a result, water storage in the system was already very low by the end of June. The July rains were a lifesaver for the coho fry and cutthroat in the system. Our only source of extra water was stored behind the little beaver dam at the outlet of Mud Lake.

The droughtproofing program continues to be a useful tool for supporting coho fry and resident trout in Hyacinthe Creek in the dry season. Hotter and drier summers are posing quite a challenge in keeping some flow in the lower reaches. No doubt climate change is contributing to this situation, as well as accumulative logging within the watershed in the past few years. In that case, while intact forests release moisture slowly throughout the dry months, moisture is flushed out of the new cutblocks at a rapid pace without the trees to retain it. We could use the beaver in Reed Lake and the wetland to impound more water at the outlets, but the beaver come and go over the years.

The program required many hours of volunteer work, and a special thank you is due to Doug Richardson, Randy Mellanby and Stephen Belfry for their help in maintaining this system in 2019.

Janis McLean

2019 DP Timeline

March 20 - inspect lines and shut down valves.

March 27 - show DP system to DFO Advisor Stacey Larsen and Shannon Anderson.

April 29 - repaired one line each at of Reed Lake and wetland

May 26 - added sandbags to Reed Lake culvert and built up the old beaver dam at wetland

May 27 - rescued 100 coho fry in Tan Creek

June 5 - Flow still adequate.

June 27 - flow minimal but still adequate. Weekly rains begin June 28 and continue to Aug.1. Weekly inspections of system.

July 11 - clean out beaver dam debris from Reed Lake to wetland

Aug. 3 - all storage topped up. Weekly inspections continue to early Sept.

Sept 8 onwards - sufficient flow.

Oct. 19 - waterline valves opened for the winter